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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,983	03/14/2002	Florence L'Alloret	220759USOPCT	4740

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EXAMINER
EGWIM, KELECHI CHIDI

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
10/09/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/069,983	L'ALLORET, FLORENCE	
	Examiner	Art Unit	
	Dr. Kelechi C. Egwim	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *44-49 and 104-148* is/are pending in the application.

4a) Of the above claim(s) *See Continuation Sheet* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *44-46,104,110,116,119,125,126,131,134-136,143 and 144* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 47-49,105-109,111-115,117,118,120-124,127-130,132,133,137-142 and 145-148.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 07/18/2007 has been entered.

2. Due to amendments and persuasive arguments by applicant, the previous rejections of record based on Breneman et al. have been overcome and are hereby withdrawn.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in

the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support for the new language in the independent claim 44, wherein the polymer is explicitly water-soluble in the entire range of 5 to 80°C at a concentration of at least 10 g/l, is not found in the originally filed description. Thus, this limitation represents new matter.

Further, there is insufficient support for the new limitation wherein the polymer expressly has no cloud point (at any temperature). The sections of the specification referenced by applicant on page 22 of the response do not provide the requisite support for the new matter limitations.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are rejected under 35 U.S.C. 102(b) as being anticipated by Merchant Jr. et al.

In col. 3, lines 39-50, Merchant Jr. et al. teach adding to water, for the purpose of lower its surface tension and separating from oil, a water-soluble polymer demulsifier having water-soluble units and at least one unit consistent with the LCST (lower critical solution temperature or cloud point) units defined in pages 13-16 of the present specification, exemplified by oxyalkylated amines, glycol resin esters, oxyalkylated

polyols and oxyalkylated alky-phenol formaldehyde resins. (see col. 5, lines 50-66). The demulsifier of Merchant et al. must be water-soluble, at least, at room temperature (around 25°C), even at five times the concentration of 10 g/l required by appellant (see col. 5, lines 33-49 of Merchant Jr. et al.), fallen within the range of water-solubility presently claimed.

Thus, the requirements for rejection 35 U.S.C. 102(b) have been met.

7. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are rejected under 35 U.S.C. 102(b) as being anticipated by Koerner et al.

In col. 2, lines 13-18, col. 5, lines 27-34 and the examples, Koerner et al. teach adding to water, a water-soluble emulsifier polymer (lowers surface tensions) with water-soluble units and at least one unit consistent with the LCST (lower critical solution temperature or cloud point) units defined in pages 13-16 of the present specification, such as water-soluble polyoxyethylene-polyoxypropylenemethylpolysiloxane, which only has a cloud point at 29°C (at four times the concentration required in the present claims), and thus is water soluble below 29 °C. (see col. 6, lines 24-28), fallen within the range of water-solubility presently claimed.

Thus, the requirements for rejection 35 U.S.C. 102(b) have been met

8. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are rejected under 35 U.S.C. 102(b) as being anticipated by Fogel et al.

In the abstract, col. 4, lines 46-48 and col. 7, lines 45-48, Fogel et al. teach adding to water, an emulsifying water-soluble polymer, with a cloud point of less than 15 °C, (meaning it is water soluble as any temperature below 15°C), wherein the water-soluble polymer is a polyether (polyoxyethylene) ester having water-soluble units and at least one unit consistent with the LCST units defined in pages 13-16 of the present specification.

Thus, the requirements for rejection 35 U.S.C. 102(b) have been met.

9. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al.

In col. 2, lines 10-46, Yamamoto et al. teach adding to water as an emulsifier, a water-soluble polymer having water-soluble units and at least one unit consistent with the LCST units defined in pages 13-16 of the present specification, represented by dimethylpolysiloxane polyoxyalkylene copolymer, with a cloud point up to 45°C, meaning it is water soluble up to 45, which is well within the range recited in the claims. Also, components E, exemplified by polyvinyl ether acid copolymers in Yamamoto et al. (see col. 3, lines 45-65) are water-soluble at room temperature, and are also consistent with the copolymers identified in appellant's specifications (pages 13-16 of present spec.), wherein the ether is the LCST group and the acid is the water-soluble group.

Thus, the requirements for rejection 35 U.S.C. 102(b) have been met.

10. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are rejected under 35 U.S.C. 102(b) as being anticipated by Yabuta et al.

In ¶'s 14, 97 and 100, Yabuta et al. teach adding to water, a water-soluble polymer having water-soluble units and at least one unit consistent with the LCST units defined in pages 13-16 of the present specification, and having a cloud point of up to 90 °C, thus being soluble at temperatures less than 90 °C, fully encompassing the claimed water-solubility range of 5-80 °C.

Thus, the requirements for rejection 35 U.S.C. 102(b) have been met.

11. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are rejected under 35 U.S.C. 102(b) as being anticipated by Maroy et al. (EP 583 814 or EP 629649).

In the abstract and page 2, line 50 to page 3, line 3, Maroy et al. (EP '814) teach a method for controlling viscosity and interface tension between water and oil (surface tension) comprising adding a sufficient amount of a water-soluble polymer comprising water-soluble units and other water-soluble units with an LCST, exemplified in page 8, lines 1-42 of Maroy et al. with the same copolymers identified by appellant in pages 13-16 of the preset specification, such as polymers having polyacrylic acid back bones grafted with LCST polyoxyethylene/polyoxypropylene polymer units (see the examples).

In the abstract, and col. 2, line 43 to col. 3, line 40, Maroy et al. (EP '649) teach a method for controlling viscosity and interface tension between water and oil (surface tension) comprising adding a sufficient amount of a water-soluble polymer comprising

water-soluble units and other water-soluble units with an LCST, which are among the polymers specified by appellant in pages 13-16 of the preset specification, such as polymers having polyacrylic acid back bones grafted with LCST polyoxyethylene/polyoxypropylene polymer units (see the examples).

Thus, the requirements for rejection 35 U.S.C. 102(b) have been met

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 44-46, 104, 110, 116, 119, 125, 126, 131, 134-136 and 143-144 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 25-67 of copending Application No. 10/069,981. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would be obvious to have the product of 10/069,981 from carrying out the method of the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

14. Applicant's arguments filed 07/18/2007 have been fully considered but they are not persuasive.

15. Applicant argues that "it is clear that the solubility in water of the entire, whole, polymer is dictated by the solubility in water of the water soluble units." Applicant is simply incorrect. While the solubility of the whole polymer is affected by the solubility of it's water-soluble units, it is also affected by the solubility, of the water-insoluble units. There is a distinction between "dictated by" and affected by". In this case, the water-solubility of the polymer would not necessarily be the same as that of its water-soluble units individually, even assuming these units had the exact same solubility properties.

16. Regarding the "no cloud point" clause, this "fundamental difference between the polymers defined in the claims and the polymers of the cited documents" according to applicant, lacks sufficient support in the originally filed description. (see above)

17. Regarding Merchant, because the reference teaches that the polymer is water-soluble, at least at room temperature, does not mean that it is only soluble at room

temperature. The reference is merely teaching broadly that the polymer is water soluble, and is not limiting that water-solubility to 25°C as suggested by applicant.

18. Regarding Koener, Fogel and Yamamoto, applicant lacks support in the originally filed invention for "no cloud point" and "water soluble at all temperatures between 5°C and 80°C". Each of Koener, Fogel and Yamamoto teach methods with the water-soluble polymers, that are soluble in the claimed range, sufficiently to meet the present invention.

19. Regarding Yabuta, if the water-soluble polymer has a cloud point at 90°C, then it is soluble at temperature below 90°C, encompassing applicant's claimed range.

20. Regarding the Marcy references, the "demixing temperature" recited in the claims are in reference to the LCST units in the polymers, not the demixing temperature of the polymers themselves. Yet, applicant compares said demixing temperature of the LCST units with the supposed demixing temperature of, not the prior LCST units as in the claims, but the prior art polymers themselves. The two are not identical.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (571) 272-1099. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCE

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PRIMARY EXAMINER